

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A DC motor having magnets as a main source for generating a magnetic flux and armature coils as a main source for generating a torque and using either thereof as a rotor,

wherein the armature coil comprises:

an inner coil group formed by arranging, ~~parallel with each other,~~ a plurality prescribed number of hollow inner coil bodies of a prescribed shape wound with a conductor of a prescribed number of turns on outer peripheral side surfaces of a virtual disc or a disc-shaped core; and

an outer coil group formed by arranging, ~~parallel with each other,~~ a plurality prescribed number of hollow outer coil bodies of a prescribed shape wound with a conductor of a prescribed number of turns on portions of said outer peripheral side surfaces with of the inner coil group taken as a virtual disc or disc-shaped core not covered by the inner coil group, such that the inner coil group and outer coil group combined cover substantially all of the outer peripheral side surfaces of the virtual disc or disc-shaped core, the outer coil group further covering portions of while covering the inner coil group.

2. (Currently Amended) The DC motor according to claim 1, wherein the outer peripheral side surface of the inner coil group is ~~made~~ externally flush with the outer peripheral side surface of the outer coil group, such that a curve tangential to the outer peripheral surfaces of the inner and outer coil groups forms a circle.

3. (Currently Amended) The DC motor according to claim 1, wherein each of the respective inner coil bodies and the respective outer coil bodies are formed into a hollow and roughly trapezoidal or a hollow and arrowed shape, each of the corresponding inner coil bodies is arranged at intervals of 120 degrees, and wherein each of the corresponding outer coil bodies

is shifted from each of the corresponding inner coil bodies by 60 degrees and is arranged at intervals of 120 degrees with respect to each adjacent outer coil body.

4. (Currently Amended) The DC motor according to claim 2, wherein each of the respective inner coil bodies and the respective outer coil bodies are formed into a hollow and roughly trapezoidal or a hollow and arrowed shape, each of the corresponding inner coil bodies is arranged at intervals of 120 degrees, and wherein each of the corresponding outer coil bodies is shifted from each of the corresponding inner coil bodies by 60 degrees and is arranged at intervals of 120 degrees with respect to each adjacent outer coil body.

5. (Previously Presented) The DC motor according to claim 1, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and ~~four~~ two brushes arranged at intervals of 90 degrees for the respective commutators.

6. (Currently Amended) The DC motor according to claim 2, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies ~~the respective outer coil bodies~~ and the respective outer coil bodies and two brushes arranged at intervals of 90 degrees for the respective commutators.

7. (Previously Presented) The DC motor according to claim 3, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and ~~four~~ two brushes arranged at intervals of 90 degrees for the respective commutators.

8. (Previously Presented) The DC motor according to claim 4, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and ~~four~~ two brushes arranged at intervals of 90 degrees for the respective commutators.

9. (Previously Presented) The DC motor according to claim 1, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and four brushes arranged at intervals of 90 degrees for the respective commutators.

10. (Previously Presented) The DC motor according to claim 2, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and four brushes arranged at intervals of 90 degrees for the respective commutators.

11. (Previously Presented) The DC motor according to claim 3, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and four brushes arranged at intervals of 90 degrees for the respective commutators.

12. (Previously Presented) The DC motor according to claim 4, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and four brushes arranged at intervals of 90 degrees for the respective commutators.

13. (Previously Presented) The DC motor according to claim 5, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and four brushes arranged at intervals of 90 degrees for the respective commutators.

14. (Previously Presented) The DC motor according to claim 6, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and four brushes arranged at intervals of 90 degrees for the respective commutators.

15. (Previously Presented) The DC motor according to claim 7, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and four brushes arranged at intervals of 90 degrees for the respective commutators.

16. (Previously Presented) The DC motor according to claim 8, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to the respective inner coil bodies and the respective outer coil bodies and four brushes arranged at intervals of 90 degrees for the respective commutators.

17. (Currently Amended) The DC motor according to claim 1, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to respective inner and outer coil bodies formed by star-connecting the respective inner coil bodies and the respective outer coil bodies and two brushes arranged at intervals of 90 degrees for the respective commutators.

18. (Currently Amended) The DC motor according to claim 2, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to respective inner and outer coil bodies formed by star-connecting the respective inner coil bodies and the respective outer coil bodies and two brushes arranged at intervals of 90 degrees for the respective commutators.

19. (Currently Amended) The DC motor according to claim 3, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to respective inner and outer coil bodies formed by star-connecting the respective inner coil bodies and the respective outer coil bodies and two brushes arranged at intervals of 90 degrees for the respective commutators.

20. (Currently Amended) The DC motor according to claim 4, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to respective inner and outer coil bodies formed by star-connecting the respective inner coil bodies and the respective outer coil bodies and two brushes arranged at intervals of 90 degrees for the respective commutators.

21. (Currently Amended) The DC motor according to claim 5, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to respective inner and outer coil bodies formed by star-connecting the respective inner coil bodies and the respective outer coil bodies ~~and two brushes arranged at intervals of 90 degrees for the respective commutators.~~

22. (Currently Amended) The DC motor according to claim 6, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to respective inner and outer coil bodies formed by star-connecting the respective inner coil bodies and the respective outer coil bodies ~~and two brushes arranged at intervals of 90 degrees for the respective commutators.~~

23. (Currently Amended) The DC motor according to claim 7, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to respective inner and outer coil bodies formed by star-connecting the respective inner coil bodies and the respective outer coil bodies ~~and two brushes arranged at intervals of 90 degrees for the respective commutators.~~

24. (Currently Amended) The DC motor according to claim 8, wherein, in a case where the armature coil portion is made to serve as a rotor, the DC motor includes commutators adaptable to respective inner and outer coil bodies formed by star-connecting the respective inner coil bodies and the respective outer coil bodies ~~and two brushes arranged at intervals of 90 degrees for the respective commutators.~~